UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,871	01/26/2001	Amal Prabhu	080398.P381	7216

			EXAMINER
7590	12/02/2004		SHANNON, MICHAEL R

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ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/770,871	PRABHU ET AL.
	Examiner	Art Unit
	Michael R Shannon	2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 January 2001</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-35</u> is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-35</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>25 June 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
       1.☐ Certified copies of the priority documents have been received.
       2.☐ Certified copies of the priority documents have been received in Application No. _____.
       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed
> publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claims 1-35 are rejected under 35 U.S.C. 102(a) as being anticipated by CEA-

775-A DTV 1394 Interface Specification (hereinafter, 775A).

Regarding claim 1, the claimed method is met as follows:

- The claimed step of receiving a multiple program transport stream is met

  by the Service Selection section 8.1 on page 31.   The mentioned source

  device is operable to select a source and tune to a channel within a

  multiple program TS.

- The claimed step of filtering the multiple program transport steam to a

  single program transport stream based on a program selected by a user is

  met by the Service Selection section 8.1 and by the MPEG Transport

  Stream Source (Figure 3, page 4), which serve to tune to and deliver a

  particular transport stream selectable by the user.

- The claimed step of providing the single program transport stream to a

  remote device over an Institute of Electrical and Electronics Engineers

  1394 serial communication bus in accordance with Electronics Industries

  Associations standards 775A and 799 is met by the 1394 bus connection

of Figure 3, which provides the transport stream to the DTV Receiver.

Also note on page 14, section 3.2.2.1 discusses the use of the EIA-799

standard for OSD delivery.

Regarding claim 2, the claimed step of determining the network topology of

consumer electronic devices such that the program transport stream is directed to one

or more specified consumer electronic devices is met by the Configuration ROM

Discovery section 9.2, pages 39-40. This section discloses the need for the devices to

"discover" other devices in the network (determine a network topology).

Regarding claim 3, the claimed step of directing a module that is not IEEE

standard 775A compliant to access an application program interface such that the

module transmits bitmap information to an IEEE standard 775A compliant remote

device for display is met by the Analog OSD section 3.2.1 on page 13. This section

discloses a need for optional support for analog systems, in which non-compliant

sources can still be displayed on the compliant device. Also, in the Digital OSD section

3.2.2 on page 14, it is noted, "support of bitmaps over an analog input is optional."

Regarding claim 4, the claimed module being a Home Audio-Visual

interoperability module that may exist locally or remotely is met by the discussion of the

HAVi model for interoperability, discussed in the IEEE 1212 Configuration ROM section

9.1 on pages 34-35.

Regarding claim 5, the further claimed steps are met as follows:

- The claimed step of tailoring program association information in

  accordance with Electronics Industries Association standard 775A is met

by the ability for the OSD Generator and the Resident Application (Figure

3, page 4), to tailor the OSD and programming information and deliver it to

the Compositor/Format Conversion.

- The claimed step of providing the tailored program association information

    to the remote device is met by the link between the A/V Source and the

    DTV through 1394 bus.

Regarding claim 6, the claimed remote device being a digital television is met by

the DTV Receiver (Digital Television Receiver) of Figure 3, on page 4.

Regarding claim 7, the claimed single program transport stream being a high

definition video stream is met by the discussion of DV Streams in section 8.3, page 33.

The High Definition DV coded video can be utilized in the system.

Regarding claim 8, the claimed single program transport stream being provided

to the remote device as an isochronous stream is met by the Digital TV Video

Processing section 3.1, on page 13. This section discloses that the link between the

A/V Source and the DTV is accomplished using an isochronous channel on the IEEE

1394 bus.

Regarding claim 9, the claimed isochronous stream being copy-protected is met

by the discussion of the future of the standard in the Foreword on page 1. The foreword

teaches that copy protection can be utilized in the system.

Regarding claim 10, the claimed single program transport stream being provided

only to authenticated remote devices on the Institute of Electrical and Electronics

Engineers 1394 serial communication bus is met by the Foreword's discussion of the

DTV 1394 interface that is required to comply with the standard and in some way be
authenticated in order to operate on the network.

Regarding claim 11, the claimed authentication being implemented using an
authentication protocol is met by the Foreword's discussion of the DTV 1394 interface
that is required to comply with the standard and in some way be authenticated in order
to operate on the network.

Regarding claim 12, the claimed method is met as follows:

- The claimed step of receiving user interface information related to a
  remote device is met by the bi-directional Control & Status connection
  between the A/V Source and the DTV Receiver (Figure 3, page 4). This
  Status line serves to receiver information regarding the user interface from
  the DTV.

- The claimed step of formatting the information for transmission over an
  Institute of Electrical and Electronics Engineers 1394 serial
  communication bus in accordance with Electronics Industries Associations
  standard 775A and 799 is met by the OSD Generator and the
  Compositor/Format Conversion of Figure 3, page 4. These parts work
  together to format the OSD and generate it at the DTV.

Regarding claim 13, the claimed device is met as follows:

- The claimed means for receiving a multiple program transport stream is
  met by the Service Selection section 8.1 on page 31. The mentioned

source device is operable to select a source and tune to a channel within
a multiple program TS.

- The claimed means for filtering the multiple program transport steam to a
  single program transport stream based on a program selected by a user is
  met by the Service Selection section 8.1 and by the MPEG Transport
  Stream Source (Figure 3, page 4), which serve to tune to and deliver a
  particular transport stream selectable by the user.

- The claimed means for providing the single program transport stream to a
  remote device over an Institute of Electrical and Electronics Engineers
  1394 serial communication bus in accordance with Electronics Industries
  Associations standards 775A and 799 is met by the 1394 bus connection
  of Figure 3, which provides the transport stream to the DTV Receiver.
  Also note on page 14, section 3.2.2.1 discusses the use of the EIA-799
  standard for OSD delivery.

Regarding claim 14, the claimed means for determining the network topology of
consumer electronic devices such that the program transport stream is directed to one
or more specified consumer electronic devices is met by the Configuration ROM
Discovery section 9.2, pages 39-40. This section discloses the need for the devices to
"discover" other devices in the network (determine a network topology).

Regarding claim 15, the claimed means for directing a module that is not IEEE
standard 775A compliant to access an application program interface such that the
module transmits bitmap information to an IEEE standard 775A compliant remote

device for display is met by the Analog OSD section 3.2.1 on page 13. This section

discloses a need for optional support for analog systems, in which non-compliant

sources can still be displayed on the compliant device. Also, in the Digital OSD section

3.2.2 on page 14, it is noted, "support of bitmaps over an analog input is optional."

Regarding claim 16, the claimed module being a Home Audio-Visual

interoperability module that may exist locally or remotely is met by the discussion of the

HAVi model for interoperability, discussed in the IEEE 1212 Configuration ROM section

9.1 on pages 34-35.

Regarding claim 17, the further claimed means are met as follows:

- The claimed means for tailoring program association information in

  accordance with Electronics Industries Association standard 775A is met

  by the ability for the OSD Generator and the Resident Application (Figure

  3, page 4), to tailor the OSD and programming information and deliver it to

  the Compositor/Format Conversion.

- The claimed means for providing the tailored program association

  information to the remote device is met by the link between the A/V

  Source and the DTV through 1394 bus.

Regarding claim 18, the claimed remote device being a digital television is met

by the DTV Receiver (Digital Television Receiver) of Figure 3, on page 4.

Regarding claim 19, the claimed single program transport stream being a high

definition video stream is met by the discussion of DV Streams in section 8.3, page 33.

The High Definition DV coded video can be utilized in the system.

Regarding claim 20, the claimed single program transport stream being provided to the remote device as an isochronous stream is met by the Digital TV Video Processing section 3.1, on page 13. This section discloses that the link between the A/V Source and the DTV is accomplished using an isochronous channel on the IEEE 1394 bus.

Regarding claim 21, the claimed isochronous stream being copy-protected is met by the discussion of the future of the standard in the Foreword on page 1. The foreword teaches that copy protection can be utilized in the system.

Regarding claim 22, the claimed single program transport stream being provided only to authenticated remote devices on the Institute of Electrical and Electronics Engineers 1394 serial communication bus is met by the Foreword's discussion of the DTV 1394 interface that is required to comply with the standard and in some way be authenticated in order to operate on the network.

Regarding claim 23, the claimed authentication being implemented using an authentication protocol is met by the Foreword's discussion of the DTV 1394 interface that is required to comply with the standard and in some way be authenticated in order to operate on the network.

Regarding claim 24, the claimed machine-readable medium that provides executable instructions, which when executed by a processor, cause the processor to perform a method is met as follows:

- The claimed step of receiving a multiple program transport stream is met by the Service Selection section 8.1 on page 31. The mentioned source

device is operable to select a source and tune to a channel within a
multiple program TS.

- The claimed step of filtering the multiple program transport steam to a
  single program transport stream based on a program selected by a user is
  met by the Service Selection section 8.1 and by the MPEG Transport
  Stream Source (Figure 3, page 4), which serve to tune to and deliver a
  particular transport stream selectable by the user.

- The claimed step of providing the single program transport stream to a
  remote device over an Institute of Electrical and Electronics Engineers
  1394 serial communication bus in accordance with Electronics Industries
  Associations standards 775A and 799 is met by the 1394 bus connection
  of Figure 3, which provides the transport stream to the DTV Receiver.
  Also note on page 14, section 3.2.2.1 discusses the use of the EIA-799
  standard for OSD delivery.

Regarding claim 25, the claimed step of determining the network topology of
consumer electronic devices such that the program transport stream is directed to one
or more specified consumer electronic devices is met by the Configuration ROM
Discovery section 9.2, pages 39-40. This section discloses the need for the devices to
"discover" other devices in the network (determine a network topology).

Regarding claim 26, the claimed step of directing a module that is not IEEE
standard 775A compliant to access an application program interface such that the
module transmits bitmap information to an IEEE standard 775A compliant remote

device for display is met by the Analog OSD section 3.2.1 on page 13. This section discloses a need for optional support for analog systems, in which non-compliant sources can still be displayed on the compliant device. Also, in the Digital OSD section 3.2.2 on page 14, it is noted, "support of bitmaps over an analog input is optional."

Regarding claim 27, the claimed module being a Home Audio-Visual interoperability module that may exist locally or remotely is met by the discussion of the HAVi model for interoperability, discussed in the IEEE 1212 Configuration ROM section 9.1 on pages 34-35.

Regarding claim 28, the further claimed steps are met as follows:

- The claimed step of tailoring program association information in accordance with Electronics Industries Association standard 775A is met by the ability for the OSD Generator and the Resident Application (Figure 3, page 4), to tailor the OSD and programming information and deliver it to the Compositor/Format Conversion.

- The claimed step of providing the tailored program association information to the remote device is met by the link between the A/V Source and the DTV through 1394 bus.

Regarding claim 28, the claimed remote device being a digital television is met by the DTV Receiver (Digital Television Receiver) of Figure 3, on page 4.

Regarding claim 30, the claimed single program transport stream being a high definition video stream is met by the discussion of DV Streams in section 8.3, page 33. The High Definition DV coded video can be utilized in the system.

Regarding claim 31, the claimed single program transport stream being provided

to the remote device as an isochronous stream is met by the Digital TV Video

Processing section 3.1, on page 13. This section discloses that the link between the

A/V Source and the DTV is accomplished using an isochronous channel on the IEEE

1394 bus.

Regarding claim 32, the claimed isochronous stream being copy-protected is met

by the discussion of the future of the standard in the Foreword on page 1. The foreword

teaches that copy protection can be utilized in the system.

Regarding claim 33, the claimed single program transport stream being provided

only to authenticated remote devices on the Institute of Electrical and Electronics

Engineers 1394 serial communication bus is met by the Foreword's discussion of the

DTV 1394 interface that is required to comply with the standard and in some way be

authenticated in order to operate on the network.

Regarding claim 34, the claimed authentication being implemented using an

authentication protocol is met by the Foreword's discussion of the DTV 1394 interface

that is required to comply with the standard and in some way be authenticated in order

to operate on the network.

Regarding claim 35, the claimed machine-readable medium that provides

executable instructions, which when executed by a processor, cause said processor to

perform a method is met as follows:

- The claimed step of receiving user interface information related to a

  remote device is met by the bi-directional Control & Status connection

between the A/V Source and the DTV Receiver (Figure 3, page 4). This

Status line serves to receiver information regarding the user interface from

the DTV.

- The claimed step of formatting the information for transmission over an

  Institute of Electrical and Electronics Engineers 1394 serial

  communication bus in accordance with Electronics Industries Associations

  standard 775A and 799 is met by the OSD Generator and the

  Compositor/Format Conversion of Figure 3, page 4. These parts work

  together to format the OSD and generate it at the DTV.

Conclusion

3.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Mitsubishi News Release, "Mitsubishi Digital Electronics Adopts DTCP (5C) Copy

Protection System for IEEE 1394-Equipped Devices".

HAVi: Home Audio Video Interoperability, by Jussi Teirikangas. Date not known,

but provides a good reference combining HAVi and 775A.

Stahl et al, US Pub. No. 2003/0227568, discloses the system for interoperability

by Thompson Multimedia Licensing, Inc.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael R Shannon whose telephone number is 703-

305-6955. The examiner can normally be reached on M-F 7:30-5:00, alternate Friday's

off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Miller can be reached on 703-305-4795. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Michael R Shannon
Examiner
Art Unit 2614

Michael R Shannon
November 23, 2004

JOHN MILLER
SUPERVISORY PATENT EXAMINER
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